

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. to 24. (Cancelled)

25. (Withdrawn) A method to feed a chemical into a liquid flow using a feed device including a nozzle casing having an isolated mixing space, said method comprising:

feeding the chemical to the isolated mixing space in the feed device;

feeding a mixing liquid to the isolated mixing space;

mixing the chemical and the mixing liquid in the isolated mixing space to form a mixture of chemical and mixing liquid, and

feeding the mixture of chemical and mixing liquid to the liquid flow.

26. (Withdrawn) A method according to claim 25, wherein the chemical is mixed with the mixing liquid less than 0.5 seconds before the mixture of chemical and mixing liquid is fed to the liquid flow.

27. (Withdrawn) A method according to claim 25, further comprising feeding the chemical and the mixing liquid to the isolated mixing space in at least two separate flow paths wherein one flow path is disposed inside the other flow path.

28. (Withdrawn) A method according to claim 25, wherein the mixture of chemical and mixing liquid is introduced into a feed liquid and then fed to the liquid flow.

29. (Withdrawn) A method according to claim 28, wherein the process liquid is used as the feed liquid includes a liquid extracted from a process which includes the method to feed a chemical.

30. (Withdrawn) A method according to claim 25, further comprising adjusting the mixing of the chemical with the mixing liquid by changing a position of the isolated mixing space in relation to a mixing liquid flow duct.

31. (Withdrawn) A method according to claim 25, wherein the chemical includes at least one of TiO₂, optical brighteners, paper dyes and silicates.

32. (Withdrawn) A method according to claim 25, wherein the mixing liquid includes fresh water.

33. (Withdrawn). A method according to claim 25, wherein the mixing liquid includes a circulation liquid extracted from a process which includes the method to feed a chemical.

34. (Withdrawn). A method according to claim 33, wherein the process is a fiber suspension flow process.

35. (Currently Amended) A feeding device for feeding chemical into a process liquid flow flowing in a process liquid flow duct, the feeding device comprising:
a nozzle casing,
a feeding liquid duct, and
a mixing apparatus [[in]]within the nozzle casing and including:
a mixing space isolated from the feeding liquid duct,

a chemical feed duct to pass the chemical to the mixing space, and
a mixing liquid feed duct to pass a mixing liquid to the mixing space,
the mixing liquid feed duct having a sidewall and said mixing liquid
feed duct closed at an end facing an outlet of the process liquid flow
duct;

wherein the end facing the outlet and the sidewall define said mixing space,
and the mixing space having [[an]]at least one outlet [[of]] opening in the side wall
of the mixing liquid feed duct for feeding a mixture of the chemical and the
mixing liquid feeding said solution to the feeding liquid duct.

36. (Currently Amended) [[A]] The feeding device according to claim 35, wherein
the chemical feed duct ~~further comprises~~ is a thin pipe ~~chemical feed duct for feeding~~
small chemical amounts to the mixing space.

37. (Currently Amended) [[A]] The feeding device according to claim [[36]] 35,
wherein the chemical feed duct ~~includes a chemical feeding duct extending~~ extends to the
isolated mixing space centrally inside the feeding liquid duct.

38. (Currently Amended) [[A]] The feeding device according to claim 35, wherein
the mixing liquid feed duct comprises a cylindrical mixing liquid feed duct for feeding
mixing liquid to the mixing space.

39 to 40 . (Cancelled)

41. (Currently Amended) [[A]] The feeding device according to ~~any of the~~
~~claims~~ claim 35, wherein the process liquid flow duct ~~include~~ includes at least a feed

opening into which also the mixing liquid feed duct extends while the feeding device is secured to the process liquid duct.

42. (Currently Amended) [[A]] The feeding device according to [[the]] claim 35, wherein the mixing liquid feed duct is at least partly located inside the nozzle casing feeding the [[feed]] feeding liquid.

43. (Currently Amended) [[A]] The feeding device according to ~~any of the claims~~ claim 35, further comprising a securing device that secures the chemical feed duct to the mixing liquid feed duct.

44. (Currently Amended) [[A]] The feeding device according to [[the]] claim 35, further comprising a securing device that secures the mixing liquid feed duct to the nozzle casing so that a position of the mixing liquid feed duct can be adjusted.

45. (Currently Amended) [[A]] The feeding device according to claim 35, further comprising a mounting for securing the nozzle casing to the mixing liquid duct.

46. (Currently Amended) [[A]] The feeding device according to claim 35, further comprising a mount securing the mixing apparatus to the nozzle casing wherein the mount is adjustable.

47. (Currently Amended) [[A]] The feeding device according to claim 35, further comprising a conical converging portion in the nozzle casing defining a converging cross-sectional area of a flow path of the [[feed]] feeding liquid to increase a flow velocity of the [[feed]] feeding liquid.

48. (Currently Amended) [[A]] The feeding device according to claim 35, further comprising a conical converging portion in the mixing liquid feed duct including a cross-sectional area of a flow path of the mixing liquid to increase a flow velocity of the mixing liquid.

49. (Currently Amended) A The feeding device according to claim 35, further comprising valves in the chemical duct and connections to control the flow of the chemical.

50. (Currently Amended) [[A]] The feeding device according to claim 35, wherein a feed opening for the mixture of chemical and mixing liquid is located inside the process liquid flow duct when the [[feed]] feeding device has been secured to the process liquid flow duct.

51. (Currently Amended) [[A]] The feeding device according to claim 35, further comprising a feed opening for mixture of chemical and mixing liquid located in a feed liquid feed opening.

52. (Currently Amended) A feeding device for introducing a chemical into a fluid flow process liquid flowing in a process liquid flow duct, the feeding device comprising:

a nozzle casing having a hollow section defining a flow path for a [[feed]] feeding liquid and a feed opening at an outlet of the flow path;

a mixing liquid feed duct having:

a sidewall extending through the hollow section of the nozzle casing,

a mixing chamber between the sidewall, and an end of the mixing feed duct, and having at the mixing chamber includes including at least one aperture in the sidewall to discharge a mixture of chemical and mixing liquid into the feed opening from the mixing chamber into the flow path of the feeding liquid in the hollow section of the nozzle casing, wherein the mixing chamber is isolated from the [[feed]] liquid flow path of the feeding liquid, and

a chemical feed duct extending through the mixing liquid feed duct and having a chemical discharge port at the mixing chamber, wherein the mixture of chemical and mixing liquid is formed in the mixing chamber ~~of the mixing liquid and the chemical~~.

53. (Currently Amended) The feeding [[duct]] device of claim 52 wherein the nozzle casing including includes a converging casing section which forms a converging section of the flow path for the [[feed]] feeding liquid.

54. (Currently Amended) The feeding [[duct]] device of claim 52 wherein the mixing liquid feed duct is coupled to the nozzle casing by an adjustable support which adjusts a position of the at least one aperture with respect to the feed opening.

55 (New). A feeding device for feeding a chemical into a process liquid flowing through a process liquid flow duct, the feeding device comprising:
a feeding liquid duct including a discharge opening configured to discharge a feeding liquid to the process liquid;

a mixing liquid feed duct extending through the feeding liquid duct and the mixing liquid feed duct passes a mixing liquid, wherein the mixing liquid feed duct includes an sidewall and an end wall, wherein the end wall extends beyond the discharge opening of the feeding liquid duct and extending into the process liquid flow duct;

a mixing space in the mixing liquid feed duct, wherein the mixing space is adjacent the end wall and within the sidewall of the mixing liquid feed duct;

a chemical feed duct extending through the mixing liquid feed duct and having a discharge opening proximate to the mixing space in the mixing liquid feed duct, wherein the chemical flows through the chemical feed duct and enters the mixing space to form a mixture of the chemical and the mixing liquid, and

a mixture discharge opening in the side wall of the mixing liquid feed duct, wherein the mixture discharge opening is configured to discharge the mixture of the chemical and the mixing liquid from the mixing space into the mixing liquid flowing into or from the discharge opening of the feeding liquid duct.